

The specification has been amended to correct a minor typographical error. Accordingly, Applicant respectfully request that the above amendment to the specification be approved. Applicant submits that no new matter has been added by virtue of the amendment to the specification.

Twenty-one (21) claims were originally filed in this case, and all claims were rejected in the first office action. In response to the first office action, Applicant amended claims 1, 6, and 12. In the final office action, the Examiner indicted that all claims continue to stand rejected. In response to the final office action, Applicant amended claims 1, 6, and 12 and canceled claims 7 and 17. In an advisory action mailed on September 13, 1999, the Examiner indicated that the proposed amendments in the final office action response will not be entered because they raise new issues that would require further consideration and/or search. Presumably, the cancellation of claims 7 and 17 have also not been entered, and thus, claims 7 and 17 remain pending. On September 15, 1999, Applicant filed a CPA of application serial number 08/777,557. In this preliminary amendment, claims 1-21 remain pending and claims 22-25 have been added. Reconsideration of the application in view of the above changes and the following remarks is respectfully requested.

The claimed invention is not disclosed by Accad (USP 5,553,200) and Smith (USP 5,644,661), either alone or in combination. The Examiner previously stated, in an Office Action mailed on August 31, 1998, that the $I''(i,j)$ value in Accad is the claimed FRAC value. Applicant, however, contends that Accad's $I''(i,j)$ value is determined by the equation $\{I'(i,j) - (2^N - 1) * d / (D - 1)\} / \{2^N - 1 / (D - 1)\}$ (column 12, line 31) wherein N is the number of bits in an image, d is an index of a coding interval of a pixel of a gamma corrected image data, and D

defines a coding interval. In contrast, the claimed FRAC value is directly determined by selected least significant bits in the eight bit color shade value. Furthermore, Applicant contends that Accad requires the additional step of comparing the $I''(i,j)$ value with the value of a corresponding threshold array pixel $T(k,l)$ to determine the coded or dithered value $C(i,j)$. In contrast, claim 1, for example, recites in part: *producing a ramp value for each pixel using said FRAC value.....; using a selected bit from said ramp value to select a color shade value of fewer than eight bits that determines the color of each pixel, the selected bit having a bit value that determines if the truncated color shade value is to be incremented to obtain the color shade value that determines the color of each pixel.* Thus, the claimed invention does not perform Accad's required step of comparing the $I''(i,j)$ value with a corresponding threshold array pixel $T(k,l)$ to determine a coded or dithered value.

The Examiner also correctly noted, in the Office Action mailed on April 15, 1999, that Accad does not teach a binary ramp value having different probabilities which reflect proximity to the truncated color shade value. In an attempt to overcome the deficiency of Accad, the Examiner relies on Smith to show ramp values having different probabilities which reflect proximity to the truncated color shade value.

However, as the Examiner correctly noted, Smith calculates a probability value using the distance between an intermediate pixel and primary pixels in order to determine the pixel value of the intermediate pixel. Smith does not disclose or suggest, as substantially recited in, for example, claim 1, *a group of plurality of ramp values having different probabilities reflecting proximity to the truncated color shade value, wherein said ramp value encodes a discrepancy between the desired eight bit color shade value and the truncated color shade value, each of the*

ramp values including a plurality of bits, the probability of a ramp value dependent upon the values of the plurality of bits in the ramp value.

The Examiner also noted (in the Office Action mailed on April 15, 1999) that Smith and Accad are combinable because Accad teaches using a FRAC value $I''(i,j)$ to determine the distance between an intermediate pixel and the nearest two primary color pixels (col. 11, lines 64-65 and col. 12, lines 20-39) and Smith teaches determining the probability of number of pixels having a primary color using the distance between the primary colors. The Examiner further states that a person of ordinary skill in the art at the time the invention was made would have been motivated to combine Smith and Accad to aid selecting the intermediate pixel values such that the number of pixels holding the primary color value follow the probability, and the integration of the colors between the two primary color level creates the color near to the original 8 bit color value.

Applicant submits that there is no suggestion or incentive to combine Accad and Smith for the following reasons. First, Accad makes no suggestion to modify his apparatus to generate a binary ramp value having different probabilities which reflect proximity to the truncated color shade value, let alone ramp values including a plurality of bits, the probability of a ramp value dependent upon the values of the plurality of bits in the ramp value.

Second, the combination of Accad and Smith is improper since the combination would require a substantial reconstruction and redesign of the elements shown in Accad. (See MPEP 2143.01). In particular, Figure 4 of Accad shows a computer system for implementing a method for reducing the bit rate of original image data into coded image data. There is no suggestions in the references on how to modify Accad's computer system to work with the image interpolator of

Smith. Furthermore, the references do not suggest or disclose any interface circuitry, systems or techniques that permit Accad's computer system to function with Smith's image interpolator system and method. Therefore, the combination of Accad and Smith is improper.

Applicant believes that this application is now in condition for allowance of all claims herein. If the Examiner believes that direct contact with applicant's attorney would help advance the prosecution of this case to finality, she is invited to telephone the undersigned at the number given below.

Respectfully submitted,
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